OIPE

1647

#12

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              RAW SEQUENCE LISTING              DATE: 09/07/2001
              PATENT APPLICATION:  US/09/600,991    TIME: 14:13:11

              Input Set : A:\0471-0162P.ST25.txt
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     3 <110> APPLICANT: MEDICO, Enzo
     4        MICHIELI, Paolo
     5        COLLESI, Chiara
     6        CASELLI, Gianfranco
     7        COMOGLIO, Paolo
     9 <120> TITLE OF INVENTION: RECOMBINANT PROTEINS DERIVED FROM HGF AND MSP
    11 <130> FILE REFERENCE: 0471-0162P
    13 <140> CURRENT APPLICATION NUMBER: US 09/600,991
C-->14 <141> CURRENT FILING DATE: 2001-08-20
    16 <160> NUMBER OF SEQ ID NOS: 22
    18 <170> SOFTWARE: PatentIn version 3.1
    20 <210> SEQ ID NO: 1
    21 <211> LENGTH: 1725
    22 <212> TYPE: DNA
    23 <213> ORGANISM: Artificial Sequence
    25 <220> FEATURE:
    26 <223> OTHER INFORMATION: Magic F-1 DNA coding sequence
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    31 gaattcaaaa aatcagcaaa gactacccta atcaaaatag atccagcact gaagataaaa      180
    32 accaaaaaag tgaatactgc agaccaatgt gctaatagat gtactaggaa taaaggactt      240
    33 ccattcactt gcaaggcttt tgtttttgat aaagcaagaa acaatgcct ctggttcccc      300
    34 ttcaatagca tgtcaagtgg agtgaaaaaa gaatttggcc atgaatttga cctctatgaa      360
    35 aacaaagact acattagaaa ctgcatcatt ggtaaaggac gcagctacaa gggaacagta      420
    36 tctatcacta agagtggcat caaatgtcag ccctggagtt ccatgatacc acacgaacac      480
    37 agctatcggg gtaaagacct acaggaaaac tactgtcgaa atcctcgagg ggaagaaggg      540
    38 ggaccctggt gtttcacaag caatccagag gtacgctacg aagtctgtga cattcctcag      600
    39 tgttcagaag ttgaatgcat gacctgcaat ggggagagtt atcgaggtct catggatcat      660
    40 acagaatcag gcaagatttg tcagcgctgg gatcatcaga caccacaccg gcacaaattc      720
    41 ttgcctgaaa gatatcccga caggggcttt gatgataatt attgccgcaa tcccgatggc      780
    42 cagccgaggc catggtgcta tactcttgac cctcacaccc gctgggagta ctgtgcaatt      840
    43 aaaacatgcg ctgacaaagc ttcgggcggt ggcggttctg gtggcggtgg ctccggcggt      900
    44 ggcggttctc tagagggaca aaggaaaaga agaaatacaa ttcatgaatt caaaaaatca      960
    45 gcaaagacta ccctaatcaa aatagatcca gcactgaaga taaaaaccaa aaaagtgaat     1020
    46 actgcagacc aatgtgctaa tagatgtact aggaataaag acttccatt cacttgcaag     1080
    47 gctttttgttt ttgataaagc aagaaaacaa tgcctctggt tccccttcaa tagcatgtca     1140
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    49 agaaactgca tcattggtaa aggacgcagc tacaagggaa cagtatctat cactaagagt     1260
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    52 acaagcaatc cagaggtacg ctacgaagtc tgtgacattc ctcagtgttc agaagttgaa     1440
    53 tgcatgacct gcaatgggga gagttatcga ggtctcatgg atcatacaga atcaggcaag     1500
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    55 cccgacaagg gctttgatga taattattgc cgcaatcccg atggccagcc gaggccatgg     1620
    56 tgctatactc ttgaccctca cacccgctgg gagtactgtg caattaaaac atgcgctgac     1680
    57 aaagctgacg acgacgacaa acaccaccac caccaccacc actag                     1725
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PATENT APPLICATION: US/09/600,991   TIME: 14:13:11

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Output Set: N:\CRF3\09072001\I600991.raw

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63 <213> ORGANISM: Artificial Sequence
65 <220> FEATURE:
66 <223> OTHER INFORMATION: Magic F-1 recombinant protein obtained combining hairpin loop
and
67       kringle domains of human HGF and MSP
69 <400> SEQUENCE: 2
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74 Leu His Leu Leu Leu Leu Pro Ile Ala Ile Pro Tyr Ala Glu Gly Gln
75              20                  25                  30
77 Arg Lys Arg Arg Asn Thr Ile His Glu Phe Lys Lys Ser Ala Lys Thr
78          35                  40                  45
80 Thr Leu Ile Lys Ile Asp Pro Ala Leu Lys Ile Lys Thr Lys Lys Val
81      50                  55                  60
83 Asn Thr Ala Asp Gln Cys Ala Asn Arg Cys Thr Arg Asn Lys Gly Leu
84 65                  70                  75                  80
86 Pro Phe Thr Cys Lys Ala Phe Val Phe Asp Lys Ala Arg Lys Gln Cys
87              85                  90                  95
89 Leu Trp Phe Pro Phe Asn Ser Met Ser Ser Gly Val Lys Lys Glu Phe
90              100                 105                 110
92 Gly His Glu Phe Asp Leu Tyr Glu Asn Lys Asp Tyr Ile Arg Asn Cys
93          115                 120                 125
95 Ile Ile Gly Lys Gly Arg Ser Tyr Lys Gly Thr Val Ser Ile Thr Lys
96      130                 135                 140
98 Ser Gly Ile Lys Cys Gln Pro Trp Ser Ser Met Ile Pro His Glu His
99 145                 150                 155                 160
101 Ser Tyr Arg Gly Lys Asp Leu Gln Glu Asn Tyr Cys Arg Asn Pro Arg
102              165                 170                 175
104 Gly Glu Glu Gly Gly Pro Trp Cys Phe Thr Ser Asn Pro Glu Val Arg
105              180                 185                 190
107 Tyr Glu Val Cys Asp Ile Pro Gln Cys Ser Glu Val Glu Cys Met Thr
108          195                 200                 205
110 Cys Asn Gly Glu Ser Tyr Arg Gly Leu Met Asp His Thr Glu Ser Gly
111      210                 215                 220
113 Lys Ile Cys Gln Arg Trp Asp His Gln Thr Pro His Arg His Lys Phe
114 225              230                 235                 240
116 Leu Pro Glu Arg Tyr Pro Asp Lys Gly Phe Asp Asp Asn Tyr Cys Arg
117              245                 250                 255
119 Asn Pro Asp Gly Gln Pro Arg Pro Trp Cys Tyr Thr Leu Asp Pro His
120              260                 265                 270
122 Thr Arg Trp Glu Tyr Cys Ala Ile Lys Thr Cys Ala Asp Lys Ala Ser
123          275                 280                 285
125 Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Leu
126      290                 295                 300
128 Glu Gly Gln Arg Lys Arg Arg Asn Thr Ile His Glu Phe Lys Lys Ser
129 305              310                 315                 320
131 Ala Lys Thr Thr Leu Ile Lys Ile Asp Pro Ala Leu Lys Ile Lys Thr
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Input Set : A:\0471-0162P.ST25.txt
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134 Lys Lys Val Asn Thr Ala Asp Gln Cys Ala Asn Arg Cys Thr Arg Asn
135                     340                 345                 350
137 Lys Gly Leu Pro Phe Thr Cys Lys Ala Phe Val Phe Asp Lys Ala Arg
138             355                 360                 365
140 Lys Gln Cys Leu Trp Phe Pro Phe Asn Ser Met Ser Ser Gly Val Lys
141         370                 375                 380
143 Lys Glu Phe Gly His Glu Phe Asp Leu Tyr Glu Asn Lys Asp Tyr Ile
144 385                 390                 395                 400
146 Arg Asn Cys Ile Ile Gly Lys Gly Arg Ser Tyr Lys Gly Thr Val Ser
147                 405                 410                 415
149 Ile Thr Lys Ser Gly Ile Lys Cys Gln Pro Trp Ser Ser Met Ile Pro
150                 420                 425                 430
152 His Glu His Ser Tyr Arg Gly Lys Asp Leu Gln Glu Asn Tyr Cys Arg
153             435                 440                 445
155 Asn Pro Arg Gly Glu Glu Gly Gly Pro Trp Cys Phe Thr Ser Asn Pro
156         450                 455                 460
158 Glu Val Arg Tyr Glu Val Cys Asp Ile Pro Gln Cys Ser Glu Val Glu
159 465                 470                 475                 480
161 Cys Met Thr Cys Asn Gly Glu Ser Tyr Arg Gly Leu Met Asp His Thr
162                 485                 490                 495
164 Glu Ser Gly Lys Ile Cys Gln Arg Trp Asp His Gln Thr Pro His Arg
165             500                 505                 510
167 His Lys Phe Leu Pro Glu Arg Tyr Pro Asp Lys Gly Phe Asp Asp Asn
168             515                 520                 525
170 Tyr Cys Arg Asn Pro Asp Gly Gln Pro Arg Pro Trp Cys Tyr Thr Leu
171         530                 535                 540
173 Asp Pro His Thr Arg Trp Glu Tyr Cys Ala Ile Lys Thr Cys Ala Asp
174 545                 550                 555                 560
176 Lys Ala Asp Asp Asp Asp Lys His His His His His His
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181 <211> LENGTH: 1692
182 <212> TYPE: DNA
183 <213> ORGANISM: Artificial Sequence
185 <220> FEATURE:
186 <223> OTHER INFORMATION: Metron F-1 DNA coding sequence
188 <400> SEQUENCE: 3
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191 gtggtgcccg ggccttggca ggaggatgtg gcagatgctg aagagtgtgc tggtcgctgt     180
192 gggcccttaa tggactgccg ggccttccac tacaacgtga gcagccatgg ttgccaactg     240
193 ctgccatgga ctcaacactc gccccacacg aggctgcggc gttctgggcg ctgtgacctc     300
194 ttccagaaga aagactacgt acggacctgc atcatgaaca atggggttgg gtaccggggc     360
195 accatggcca cgaccgtggg tggcctgccc tgccaggctt ggagccacaa gttcccgaat     420
196 gatcacaagt acacgcccac tctccggaat ggcctggaag agaacttctg ccgtaaccct     480
197 gatggcgacc ccggaggtcc ttggtgctac acaacagacc ctgctgtgcg cttccagagc     540
198 tgcggcatca atcctgccg ggaggccgcg tgtgtctggt gcaatggcga ggaataccgc     600
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202 gagttctgtg acctcccccg ctgcgggtcc gaggcacagc cccgcctcga gggcggtggc    840
203 ggttctggtg gcggtggctc cggcggtggc ggttctctag agggacaaag gaaaagaaga    900
204 aatacaattc atgaattcaa aaaatcagca aagactaccc taatcaaaat agatccagca    960
205 ctgaagataa aaaccaaaaa agtgaatact gcagaccaat gtgctaatag atgtactagg   1020
206 aataaaggac ttccattcac ttgcaaggct tttgtttttg ataaagcaag aaaacaatgc   1080
207 ctctggttcc ccttcaatag catgtcaagt ggagtgaaaa aagaatttgg ccatgaattt   1140
208 gacctctatg aaaacaaaga ctacattaga aactgcatca ttggtaaagg acgcagctac   1200
209 aagggaacag tatctatcac taagagtggc atcaaatgtc agccctggag ttccatgata   1260
210 ccacacgaac acagctatcg gggtaaagac ctacaggaaa actactgtcg aaatcctcga   1320
211 ggggaagaag ggggaccctg gtgtttcaca agcaatccag aggtacgcta cgaagtctgt   1380
212 gacattcctc agtgttcaga agttgaatgc atgacctgca atggggagag ttatcgaggt   1440
213 ctcatggatc atacagaatc aggcaagatt tgtcagcgct gggatcatca gacaccacac   1500
214 cggcacaaat tcttgcctga aagatatccc gacaagggct ttgatgataa ttattgccgc   1560
215 aatcccgatg gccagccgag gccatggtgc tatactcttg accctcacac ccgctgggag   1620
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217 caccaccact ag                                                        1692
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223 <213> ORGANISM: Artificial Sequence
225 <220> FEATURE:
226 <223> OTHER INFORMATION: Metron F-1 recombinant protein obtained combining hairpin
loop and
227       kringle domains of human HGF and MSP
229 <400> SEQUENCE: 4
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232 1               5                   10                  15
234 Pro Gly Gln Arg Ser Pro Leu Asn Asp Phe Gln Val Leu Arg Gly Thr
235         20                  25                  30
237 Glu Leu Gln His Leu Leu His Ala Val Val Pro Gly Pro Trp Gln Glu
238         35                  40                  45
240 Asp Val Ala Asp Ala Glu Glu Cys Ala Gly Arg Cys Gly Pro Leu Met
241     50                  55                  60
243 Asp Cys Arg Ala Phe His Tyr Asn Val Ser Ser His Gly Cys Gln Leu
244 65                  70                  75                  80
246 Leu Pro Trp Thr Gln His Ser Pro His Thr Arg Leu Arg Arg Ser Gly
247             85                  90                  95
249 Arg Cys Asp Leu Phe Gln Lys Lys Asp Tyr Val Arg Thr Cys Ile Met
250             100                 105                 110
252 Asn Asn Gly Val Gly Tyr Arg Gly Thr Met Ala Thr Thr Val Gly Gly
253         115                 120                 125
255 Leu Pro Cys Gln Ala Trp Ser His Lys Phe Pro Asn Asp His Lys Tyr
256     130                 135                 140
258 Thr Pro Thr Leu Arg Asn Gly Leu Glu Glu Asn Phe Cys Arg Asn Pro
259 145                 150                 155                 160
261 Asp Gly Asp Pro Gly Gly Pro Trp Cys Tyr Thr Thr Asp Pro Ala Val
262             165                 170                 175
264 Arg Phe Gln Ser Cys Gly Ile Lys Ser Cys Arg Glu Ala Ala Cys Val
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Output Set: N:\CRF3\09072001\I600991.raw

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265              180                185              190
267 Trp Cys Asn Gly Glu Glu Tyr Arg Gly Ala Val Asp Arg Thr Glu Ser
268          195                200                205
270 Gly Arg Glu Cys Gln Arg Trp Asp Leu Gln His Pro His Gln His Pro
271      210                215                220
273 Phe Glu Pro Gly Lys Phe Leu Asp Gln Gly Leu Asp Asp Asn Tyr Cys
274 225                230                235                240
276 Arg Asn Pro Asp Gly Ser Glu Arg Pro Trp Cys Tyr Thr Thr Asp Pro
277                  245                250                255
279 Gln Ile Glu Arg Glu Phe Cys Asp Leu Pro Arg Cys Gly Ser Glu Ala
280          260                265                270
282 Gln Pro Arg Leu Glu Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
283      275                280                285
285 Gly Gly Gly Ser Leu Glu Gly Gln Arg Lys Arg Arg Asn Thr Ile His
286      290                295                300
288 Glu Phe Lys Lys Ser Ala Lys Thr Thr Leu Ile Lys Ile Asp Pro Ala
289 305                310                315                320
291 Leu Lys Ile Lys Thr Lys Lys Val Asn Thr Ala Asp Gln Cys Ala Asn
292                  325                330                335
294 Arg Cys Thr Arg Asn Lys Gly Leu Pro Phe Thr Cys Lys Ala Phe Val
295          340                345                350
297 Phe Asp Lys Ala Arg Lys Gln Cys Leu Trp Phe Pro Phe Asn Ser Met
298          355                360                365
300 Ser Ser Gly Val Lys Lys Glu Phe Gly His Glu Phe Asp Leu Tyr Glu
301      370                375                380
303 Asn Lys Asp Tyr Ile Arg Asn Cys Ile Ile Gly Lys Gly Arg Ser Tyr
304 385                390                395                400
306 Lys Gly Thr Val Ser Ile Thr Lys Ser Gly Ile Lys Cys Gln Pro Trp
307                  405                410                415
309 Ser Ser Met Ile Pro His Glu His Ser Tyr Arg Gly Lys Asp Leu Gln
310          420                425                430
312 Glu Asn Tyr Cys Arg Asn Pro Arg Gly Glu Glu Gly Gly Pro Trp Cys
313          435                440                445
315 Phe Thr Ser Asn Pro Glu Val Arg Tyr Glu Val Cys Asp Ile Pro Gln
316      450                455                460
318 Cys Ser Glu Val Glu Cys Met Thr Cys Asn Gly Glu Ser Tyr Arg Gly
319 465                470                475                480
321 Leu Met Asp His Thr Glu Ser Gly Lys Ile Cys Gln Arg Trp Asp His
322              485                490                495
324 Gln Thr Pro His Arg His Lys Phe Leu Pro Glu Arg Tyr Pro Asp Lys
325          500                505                510
327 Gly Phe Asp Asp Asn Tyr Cys Arg Asn Pro Asp Gly Gln Pro Arg Pro
328          515                520                525
330 Trp Cys Tyr Thr Leu Asp Pro His Thr Arg Trp Glu Tyr Cys Ala Ile
331      530                535                540
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336 His His His
340 <210> SEQ ID NO: 5
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VERIFICATION SUMMARY   DATE: 09/07/2001
PATENT APPLICATION: US/09/600,991   TIME: 14:13:12

Input Set : A:\0471-0162P.ST25.txt
Output Set: N:\CRF3\09072001\I600991.raw

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